SUPPORT FOR THE AMENDMENTS

This Amendment amends the specification by adding various section headings and a Brief Description of the Drawings section. No new matter would be introduced by entry of these amendments.

Upon entry of these amendments, Claims 12-22 and 26-29 will be pending in this application. Claim 12 is independent.

REQUEST FOR RECONSIDERATION

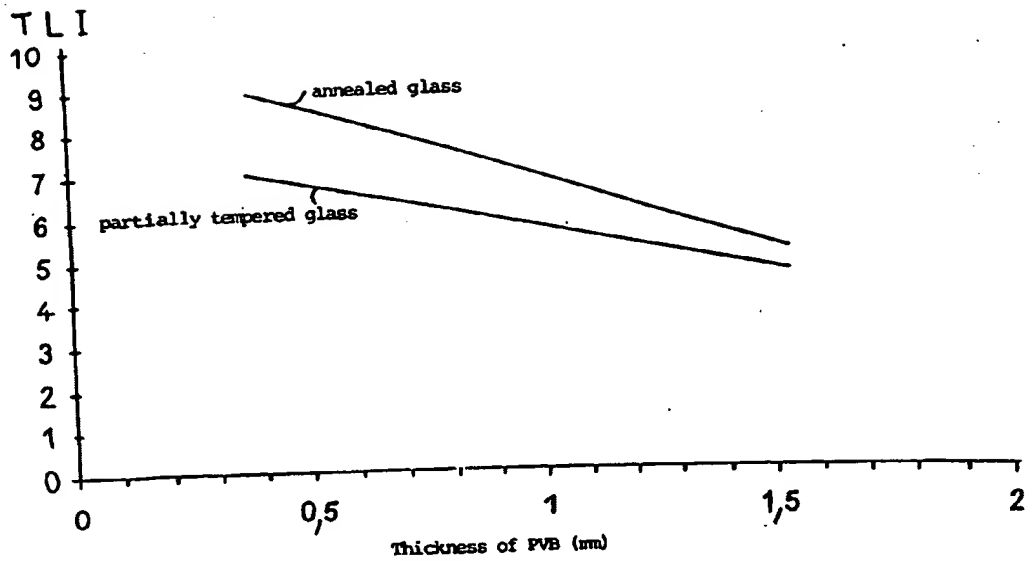
Applicants respectfully request entry of the foregoing and reexamination and reconsideration of the application, as amended, in light of the remarks that follow.

Applicants thank the Examiner for the courtesies extended to their representative during the July 17, 2003, personal interview.

As discussed at the interview, the present invention provides a glazing which affords exceptional laceration protection to persons striking against the glazing after it has shattered. The lacerations that result when a person strikes against a shattered laminated glazing are far more severe than those that result when a person strikes against an intact glazing surface, which breaks up only afterwards. The laceration protection achieved by the present invention is provided by a laminated glazing produced by adhering together, with an intercalary adhesive layer having a thickness of more than 0.76 mm, two sheets of glass each having a thickness of from 1.5 to 3 mm and having a core compressive stress in the central zone ranging from 20 to 50 MPa.

The superior anti-laceration properties of the glazing produced by the claimed method are discussed in specification at Example 1 and illustrated in Fig. 1, which is reproduced below.

FIGURE 1



The partially tempered glass in Fig. 1 has a surface stress of 45 ± 10 MPa, which is equivalent to a core compressive stress in the central zone approximately equal to 22 ± 5 MPa. Specification at page 8, lines 20-21. In contrast, the annealed glass in Fig. 1 has a core compressive stress of approximately zero. Fig. 1 shows that laminated glazing produced by the method of independent Claim 1 using the compressively stressed partially tempered glass exhibits a significantly lower Triple Laceration Index ("TLI"), indicative of lacerations of less severity, than laminated glazing produced using the non-compressively stressed annealed glass.

Claims 12-19 and 26-29 are rejected under 35 U.S.C. §103(a) over U.S. Patent No. 4,910,074 ("Fukawa") in view of U.S. Patent No. 3,425,176 ("Cairns"). In addition, Claims 20-22 are rejected under 35 U.S.C. §103(a) over Fukawa and Cairns and further in view of Admitted Prior Art ("APA"). Claims 12-19 and 28-29 are rejected under 35 U.S.C. §103(a) over U.S. Patent No. 3,558,415 ("Rieser") in view of Cairns, or alternatively, Cairns in view

of Rieser. Claims 20-22 are rejected under 35 U.S.C. §103(a) over Rieser in view of Cairns, or alternatively, Cairns in view of Rieser, and further in view of APA. Claims 26-27 are rejected under 35 U.S.C. §103(a) ver Rieser in view of Cairns, or alternatively, Cairns in view of Rieser, and further in view of Fukawa.

Independent Claim 12 reads as follows:

> 12. (Previously Amended) A method of making a anti-laceration automobile side window glazing comprising adhering two sheets of glass adapted to fit an automobile side window with an intercalary adhesive layer, wherein
>
> said intercalary adhesive layer has a thickness of more than 0.76 mm;
>
> each of said two sheets of glass has a thickness of from 1.5 to 3 mm; and
>
> each of said two sheets of glass has a **core** *compressive stress* in the central zone *ranging from 20 to 50 MPa.*

Fukawa discloses a safety glass and a prelaminate for the safety glass. Fukawa discloses:

> In the present invention, the glass sheet to be laminated with the prelaminate for the safety glass, may be a single sheet glass ... or a laminated glass ..., wherein a pair of glass sheets are laminated with an intermediate layer ... interposed therebetween, or may be a multi-layered glass. Such a glass sheet may be flat or curved into a desired configuration. Further, half-reinforcing treatment, entire surface reinforcing treatment or partial reinforcing treatment may be applied as the case requires. Fukawa at column 4, lines 38-49.

Fukawa also discloses in Claim 2 that "the glass sheet is selected from the group consisting of a non-tempered glass sheet, a tempered glass sheet, a partially tempered glass sheet, and a combination thereof". Fukawa at column 16, lines 45-49.

Cairns discloses a glazing unit that can be used as a side window of an automobile and can include tempered glass and semi-tempered glass. Cairns at abstract; column 2, lines 49-52, 63-64.

Rieser discloses a glass window including glass sheets chemically tempered to have a surface compression zone. Rieser at abstract.

However, the cited prior art fails to suggest the independent Claim 12 limitation of adhering with an intercalary adhesive layer two sheet of glass where "each of said two sheets of glass has a **core** *compressive stress* in the central zone *ranging from 20 to 50 MPa*".

The Office Action asserts with respect to Fukawa that:

> The reference teaches tempering or semi-tempering the glass sheets prior to bonding [citation omitted]; therefore, the skilled artisan would have appreciated that the glass sheets of Fukawa would have a core compressive stress in the central zone ranging from 20-50 MPa, because like the glass sheets of the present invention, the glass sheets of Fukawa are tempered or semi-tempered and have a thickness consistent with that of the claimed invention. Office Action at page 4, lines 1-6.

The Office Action asserts with respect to Rieser that:

> The reference teaches tempering the glass sheets prior to bonding [citation omitted]; therefore, the skilled artisan would have appreciated that the glass sheets of Rieser would have a core compressive stress in the central zone ranging from 20-50 MPa, because like the glass sheets of the present invention, the glass sheets of Rieser are tempered and have a thickness consistent with that of the claimed invention. Office Action at page 6, lines 8-13.

Thus, the Office Action implicitly asserts that by merely disclosing tempering Fukawa and Rieser ***inherently*** disclose the independent Claim 12 limitation of glass sheets having "a c re *compressive stress* in the central zone *ranging from 20 to 50 MPa*"

However, tempering and semi-tempering do not *necessarily* produce compressive stress in the core of a glass sheet. Rieser discloses that tempering can be either thermal or chemical. Rieser discloses that in thermal tempering, the surface is placed under compressive stress while the core itself is put in tension. Rieser at column 2, lines 51-57. Rieser also discloses that in chemical tempering, the compressive stress can range from a relatively high

level at the surfaces to zero at a depth of only a few thousandths of an inch below the surface. Rieser at column 3, lines 38-43. Thus, Rieser indicates that tempering of glass sheet typically produces core stress that is not compressive.

Rieser's description of the compressive surface stress and the tensile core stress typically produced in glass sheet by thermal and chemical tempering is confirmed in Foundations of Materials Science and Engineering, pages 578-580, copy attached.

Because tempering does not *necessarily* result in a compressive core stress, and typically results in a tensile core stress, the mere disclosure of tempering in Fukawa, Cairns and Rieser is not an inherent disclosure a compressive core stress.

Because the cited prior art is silent about compressive core stress in glass sheet, and this feature is not inherently produced by tempering, the cited prior art fails to suggest the independent Claim 12 limitation of glass sheets having "a core *compressive stress* in the central zone *ranging from 20 to 50 MPa*". Thus, the various rejections under 35 U.S.C. § 103(a) should be withdrawn.

The specification is objected to. To obviate the objection, section headings are added to the specification.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Applicants respectfully request favorable consideration and prompt allowance of the application.

Should the Examiner believe that anything further is necessary in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

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Attachment:
Foundations of Materials Science and Engineering, pages 578-580

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